



BL2600 WOLF™

Ethernet-Enabled Single-Board Computer

Models BL2600, BL2610

The BL2600 Wolf single-board computer provides embedded systems engineers a complete and expandable performance package. Two standard models—one with 10/100 Ethernet, one without—feature the Rabbit 3000® microprocessor at 44.2 and 29.4 MHz respectively, with at least 512K Flash and 512K SRAM (standard).

The BL2600 is an advanced single-board computer that incorporates the powerful Rabbit 3000 microprocessor, Flash memory, SRAM, digital I/O ports, A/D converter inputs, D/A converter outputs, RS-232/RS-485 serial ports, and a 10/100Base-T Ethernet port. Optional RabbitNet Expansion and serial Flash cards are available. The BL2600 Wolf can be connected via two mechanisms: Dual entry IDC through-hole sockets which allow header mounting on either side of the board and polarized locking industry-standard friction-lock connectors that enable rapid assembly with wire harnesses. These connectors provide dependable cable harness connectivity to I/O. RabbitNet™ expansion boards are available (including A/D, D/A, digital I/O, and keypad/display interface cards) to interface via the two multiplexed SPI RS-422 ports.

Programming the BL2600

Programs are developed and debugged using Z-World's industry-proven Dynamic C® software, which runs on a Windows PC. The programming device is connected via a serial cable, a USB cable, or Ethernet. Comprehensive debugging support includes break points, watch expressions and many other extensive features oriented toward real-time embedded systems programming. An extensive library of drivers and sample programs is provided, including a royalty-free TCP/IP stack for network and Internet communications. Full source code is provided for most library routines.

BL2600 Features

- Rabbit 3000® microprocessor @ 44.2 MHz
- 10/100Base-T Ethernet Connectivity
- 512K Flash and 512K SRAM standard
- I/O can be connected via IDC headers or friction lock connectors
- Can be installed using mounting holes, or positioned on top of a mother board with IDC headers
- 36 digital I/O: 16 protected inputs, 20 sinking/sourcing software configurable (4 high-current digital outputs, 16 I/O individually configurable)
- 12 analog channels: eight 11-bit A/D, four 12-bit D/A buffered outputs
- 5 serial ports
- RabbitNet expansion capability
- 950 mA-h backup battery for RTC (time/date clock) and SRAM
- 1 Power LED and 3 Ethernet status LEDs (BL2600 only)
- Additional options: 10Base-T Ethernet & Lower Memory Versions



BL2600

Tool Kit

The BL2600 Tool Kit contains software and hardware tools needed to begin design including a demo board, Dynamic C software and documentation on CD-ROM, User's Manual with schematics, serial cable for programming and debugging, AC adapter (US/Canada only), wiring assembly and friction-lock crimp pins & housings (standard crimping tool sold separately).

Dynamic C is a registered trademark of Z-World, Inc. Rabbit & Rabbit 3000 are trademarks of Rabbit Semiconductor, Inc.

BL2600 Specifications & Features

FEATURE	BL2600	BL2610
Microprocessor	Rabbit 3000 at 44.2 MHz	Rabbit 3000 at 29.4 MHz
Ethernet Port	10/100Base-T, 3 LEDs	None
Flash Memory	512K (standard)	
SRAM	512K Program Execution, 256K Data	512K (standard)
Backup Battery	Panasonic CR2477 or equivalent 3 V lithium coin type, 950 mAh, socket mounted	
Configurable I/O	16: Individually software configurable digital inputs @ ± 36 V DC, 1.5 V switching threshold, or sinking digital outputs up to 40 V, 200 mA each	
Digital Inputs	16: Hardware-configurable pull-up or pull-down, ± 36 V DC, switching threshold 1.4 V typ.	
High-Current Digital Outputs	4: Individually software configurable, +40 V DC, 2 A max. per channel, sinking or sourcing	
Analog Inputs	8 channels with 11-bit resolution, software selectable ranges Unipolar: 1, 2, 2.5, 5, 10, 20 V DC; Bipolar: $\pm 1, \pm 2, \pm 5, \pm 10$ V DC; Four of the eight channels maybe hardware-configured for 4 – 20 mA, 12 kHz update rate	
Analog Outputs	4 channels, 12-bit resolution, buffered (0 – 10 V DC, ± 10 V DC), 4 – 20 mA, 12 kHz update rate	
RabbitNet	Compatible Expansion Cards: Digital I/O, A/D, D/A, Relay, Keypad Display Interface	
Serial Ports	Up to 5 serial ports: <ul style="list-style-type: none"> • 1 RS-485 or 1 RS-232 • 2 RS-232 or one RS-232 (with CTS/RTS) • 1 clocked serial port multiplexed to 2 RS-422 SPI master ports 1 CMOS compatible serial port for programming/debug	
Serial Rate	Max. async = CLK/8, Max. sync = CLK/2	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable from the first) and one 10-bit timer with 2 match registers	
Watchdog/Supervisor	Yes	
Power	9 – 36 V DC, 25 W max. (includes power to RabbitNet expansion boards)	
Operating Temperature	-40° to +70°C (-40° to +85°C without battery)	
Humidity	5 – 95%, noncondensing	
Connectors	One Ethernet and two RabbitNet™ RJ-45 connectors Two polarized, 9-position with 0.1" pitch friction-lock connectors Three 4-position power terminals with 0.156" pitch friction-lock connectors Two 20-position terminals with 0.1" pitch (and 2 x 20 IDC headers) friction-lock connectors One 13-position terminal with 0.1" pitch (and 2 x 13 IDC header) friction-lock connector One 10-position terminal with 0.1" pitch (and 2 x 7 IDC header) friction-lock connector One 2 x 5 IDC, 1.27 mm pitch (BL2600) programming port One 2 x 5 IDC, 2 mm pitch (BL2610) programming port	
Board Size	4.85" x 4.96" x 1.00" (123 x 126 x 25 mm)	
Pricing (qty. 1/100) Part Number	\$289 / 237 101-0889	\$269 / 221 101-0891
Tool Kit Part Number		\$199 U.S. 101-0626 Int'l 101-0627

Options

BL2600 with 10Base-T (qty. 1/100) Rabbit 3000™ @ 29.4 MHz Part Number	\$279 / 229 101-0906
BL2600 with 10Base-T (qty. 1/100) 256K Flash, 128K SRAM Rabbit 3000™ @ 29.4 MHz Part Number	\$269 / 221 101-0907
BL2610 with 256K Flash / 128K SRAM (qty 1/100) Part Number	\$249 / 204 101-0908